m1 DEPARTMENT OF HEALTH

Resident Cohorts for Respiratory Outbreaks in Long-term Care

Using infection prevention and control (IPC) measures, including forming cohorts, is critical to prevent entry and spread of COVID-19 and other viral respiratory illnesses in long-term care facilities (LTCF) that follow health care guidance.

The goal of a cohort is to minimize interaction of infectious individuals with noninfected individuals as much as possible. Cohorts are created based on clinical diagnosis, microbiologic confirmation (e.g., testing) when available, epidemiology (presence and spread), and mode of transmission of the infectious agent. Benefits of forming resident cohorts:

▪ Limits the risk of spreading respiratory illnesses by using dedicated staff to care only for COVID-19-positive residents. May be considered for other respiratory illnesses (for example, influenza).

▪ Allows for conservation of personal protective equipment (PPE) resources and extended use of PPE, such as respirators and eye protection, when supplies are limited.

LTCF should follow CDC: Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic (www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html).

For other respiratory pathogens, please follow: CDC: 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (www.cdc.gov/infectioncontrol/pdf/guidelines/isolation-guidelines-H.pdf).

Determining how to use cohorts with cocirculation of influenza and COVID-19

Symptomatic resident(s) with undiagnosed respiratory illness

Residents with symptoms should be prioritized for immediate placement in isolation, ideally in a single room with a private bathroom. Refer to CDC: Symptoms of COVID-19 (www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html).

▪ Follow CDC testing recommendations for COVID-19. Consider testing for other respiratory pathogens, such as influenza and respiratory syncytial virus (RSV).

▪ If limited single rooms are available, or if numerous residents are simultaneously identified to have known COVID-19 exposures or symptoms of concern for COVID-19, residents should remain in their current location pending return of test results. Consider the needs and risks of individual residents.

▪ If using a designated COVID-19 unit, place residents in the COVID-19 unit only if they have tested positive for COVID-19.

Resident(s) with confirmed illness (e.g., COVID-19, influenza)

▪ Residents with confirmed COVID-19, regardless of influenza test results, should be placed in a designated COVID-19 unit with dedicated staff, as able.

- Residents with confirmed COVID-19 and influenza should be placed in a private room or in a room with another resident with confirmed COVID-19 and influenza in a designated COVID-19 unit.

- Residents with influenza who do not concurrently have COVID-19 should be isolated in a private room and should not be placed in the same location as residents with COVID-19.

- Residents who have close contact with someone with confirmed COVID-19 infection are considered exposed. Follow CDC guidance for empiric transmission-based precautions and testing.

  - Close contact means being within 6 feet of someone with COVID-19 infection for an accumulated 15 minutes or more over a 24-hour period.

		Resident A[1]				
		No respiratory symptoms[2] and not in isolation or quarantine	Respiratory symptoms, diagnosis pending	Isolation for COVID-19 positive	Isolation for influenza positive	Isolation for COVID-19 and influenza positives
Resident B[1]	No respiratory symptoms[2] and not in isolation or quarantine	COHORT	*	*	*	*
	Respiratory symptoms, diagnosis pending	*	PRIVATE ROOM	*	*	*
	Isolation for COVID-19 positive	*	*	COHORT	*	*
	Isolation for influenza positive	*	*	*	COHORT	*
	Isolation for COVID-19 and influenza positives	*	*	*	*	COHORT

Table adapted with permission from Washington Department of Health: Laboratory Testing and Cohorting Recomendations for Respiratory Outbreaks in Long-Term Care when SARS-CoV-2 and Influenza Viruses are Co-circulating (www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/420-373-FluCOVIDLTCF.pdf).

*Follow CDC guidance on quarantine and isolation. Consider risks and benefits of individual residents for room placement. CDC: Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic.

[1] Residents who require aerosol-generating procedures (AGP) should be prioritized for a private room when transmission in the community increases. Refer to CDC: Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic.

[2] Residents who are asymptomatic but have tested positive for either influenza or COVID-19 should be placed in appropriate transmission-based precautions/isolation and not in a cohort with residents who have not tested positive.

Key infection prevention and control terms and concepts

Transmission-based precautions

Infection prevention and control measures used when residents with known or suspected infection are separated from others. Transmission-based precautions are used in both isolation and quarantine. Refer to CDC: Transmission-Based Precautions (www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html).

Risk assessment

A systematic process of evaluating potential risks that may be involved in a projected activity or undertaking.

- A risk assessment may be needed in certain situations (e.g., memory care) when deciding to move an exposed resident or a resident with suspected or confirmed COVID-19, influenza, or other infectious diseases due to safety concerns. It is up to the facility to determine the risk of moving a resident to another location, and if necessary, to apply appropriate IPC measures.

Outbreak

Facilities may consider using the outbreak definition as outlined in CORHA: Proposed Investigation and Reporting Threshold and Outbreak Definitions for COVID-19 in Healthcare Settings (preparedness.cste.org/wp-content/uploads/2020/11/HC-Outbreak-Definition.pdf).

Key principles for a COVID-19 unit

Physical layout

- Determine a space (e.g., floor, wing, cluster of rooms, etc.) that can be physically separated from other rooms or units housing residents without COVID-19 infection. Any physical barrier will need to meet building and fire codes.

- Establish a traffic flow for people moving from clean to dirty areas to prevent cross contamination. Take into consideration the entrances and exits and the location of PPE and donning and doffing stations. Post signs prominently at the point of entry to the COVID-19 unit or room of a resident that tested positive for COVID-19. Refer to Enhanced Respiratory Precautions (www.health.state.mn.us/diseases/coronavirus/hcp/ppepresign.pdf).

- Assess new or additional engineering controls that may be put in place. Refer to Heating, Ventilation, and Air Conditioning (HVAC) and Fan Considerations for Long-term Care during COVID-19 (www.health.state.mn.us/diseases/coronavirus/hcp/hvac.pdf). Ensure optimal ventilation and implement ventilation mitigation strategies. Refer to CDC: Ventilation in Buildings (www.cdc.gov/coronavirus/2019-ncov/community/ventilation.html).

Personal protective equipment

- Set up and identify clear locations for separate PPE donning (clean) and doffing (dirty) stations to prevent cross-contamination. Designate separate clean and dirty (contaminated) areas using spacing and floor markings, donning/doffing posters, and similar measures. Refer to CDC:

[Sequence for Putting on Personal Protective Equipment (PPE) (www.cdc.gov/hai/pdfs/ppe/PPE-Sequence.pdf)](www.cdc.gov/hai/pdfs/ppe/PPE-Sequence.pdf).

- **Donning station:** supplied with gowns, gloves, alcohol-based hand rub, respiratory protection, and eye protection.

- **Doffing station:** large wastebaskets (or laundry bins) for gowns, alcohol-based hand rub, disinfecting wipes, and space to put eye protection and other PPE that needs cleaning/disinfection.

- Refer to CDC guidance for managing PPE, at [Personal Protective Equipment Use Tracking Tools (www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/burn-calculator.html)](www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/burn-calculator.html) and [Conserving Supplies of Personal Protective Equipment in Healthcare Facilities during Shortages (www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html)](www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html).

- Frequently clean and disinfect surfaces of donning/doffing stations and high touch surfaces throughout the COVID-19 unit and/or room of a positive COVID-19 resident.

Staffing

- When possible, dedicate staff to work exclusively in a COVID-19 unit or with positive COVID-19 residents and ensure they do not work in other areas of the facility.

- To the extent possible, restrict access of ancillary staff (e.g., dietary) to the COVID-19 unit or room of a positive COVID-19 resident.

- If possible, designate a separate workspace, break room, and restroom for staff who are working on the COVID-19 unit.

  - Create a location with alcohol-based hand rub for safe donning and doffing of PPE when on break. Define a place and process for hand hygiene, disinfecting PPE (e.g., eye protection), storing PPE, and donning PPE after the break.

  - Ensure that the break area has enough space for social distancing and limit the number of staff present at the same time.

  - Frequently clean and disinfect surfaces in staff workspaces, break rooms, and restrooms.

Admissions to COVID-19 unit

- Admit only residents with confirmed COVID-19 to the COVID-19 unit. If using antigen tests, refer to [CDC: Considerations for SARS-CoV-2 Antigen Testing for Healthcare Providers Testing Individuals in the Community (www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html)](www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html).

Infrastructure

- Ensure the facility has a structure in place that supports emergency response, infection prevention, health care worker training, protocols, policies, and procedures that can be scaled up and down, depending on the response level needed.

- CDC: Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic (www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html)

Additional resources

COVID-19 clinical guidance

- CDC: Clinical Care Considerations (COVID-19) (www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/clinical-considerations-index.html)
- Information for providers: Therapeutic Options for COVID-19 Patients (www.health.state.mn.us/diseases/coronavirus/hcp/therapeutic.html)

Testing guidance

- CDC: Testing for SARS-CoV-2 Infection (www.cdc.gov/coronavirus/2019-ncov/hcp/testing-overview.html#TestingInfection)
- Influenza Information for Health Professionals (www.health.state.mn.us/diseases/flu/hcp/index.html)

PPE guidance

- CDC: Occupationally Acquired Infections in Healthcare Settings (www.cdc.gov/hai/prevent/ppe.html)
- COVID-19 Source Control (Masking), PPE, and Testing Grid (www.health.state.mn.us/diseases/coronavirus/hcp/ppegrid.pdf)

Vaccine guidance

- CDC: Vaccines for COVID-19 (www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html)
- CDC: ACIP Vaccine Recommendations and Guidelines (www.cdc.gov/vaccines/hcp/acip-recs/)

Disease specific guidance

- Long-term Care: Influenza (www.health.state.mn.us/diseases/flu/ltc/index.html)
- Pneumococcal Information for Health Professionals (www.health.state.mn.us/diseases/pneumococcal/hcp.html)
- Respiratory Syncytial Virus Infection (RSV) for Health Professionals (www.health.state.mn.us/diseases/rsv/hcp.html)

Minnesota Department of Health
625 Robert Street North
St. Paul, MN 55164-0975
www.health.state.mn.us

07/26/23

To obtain this information in a different format, call: 651-201-5414.